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(54) METHOD FOR MASKING SALTY TASTE, ACID TASTE AND SMELL FROM FOOD

(57)Abstract:

PROBLEM TO BE SOLVED: To mask the salty taste, acid taste and smell of a food while giving little influence on other tastes by adding a specific additive to a food.

SOLUTION: A food, especially a salty food such as bean paste soup and dipping source for noodle, a food having acid taste such as food vinegar and fruit juice or a food having fishy smell or fermentation smell is incorporated with sodium 5'-uridylylate (UMP) and/or sodium 5'-cytidylate (CMP) in an amount of generally 0.0001-20 wt.% and preferably 0.0005-10 wt.% in terms of UMP or CMP.

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DETAILED DESCRIPTION

[Detailed description]

[0001]

[The technical field to which invention belongs] this invention relates to the technique of masking the taste, acidity, and a scent from the salt of food by what 5'-uridylic-acid sodium (UMP) or 5'-cytidylic-acid sodium (CMP) is added for.

[0002]

[Prior art] From the salt of food, components, such as a taste, acidity, and a scent, give freshness peculiar to food, and a cool feeling, and also they have an important meaning in food, such as having the effect which raises shelf life. However, as the high food of a salt content which is represented by pickles and picked fish guts is in the inclination that the salt taste is disliked, in connection with a healthy intention in recent years for example, by some man, displeasure is given conversely and it has also become the cause of making appetite declining.

[0003] among these, a salt -- increasing a taste, although the technique of adding a sodium glutamate (MSG) or sugar is in masking of a pungent taste, acidity, etc. -- relative -- a salt -- the ** to which a pungent taste, acidity, etc. are decreased and most other tastes are not changed -- a salt -- the technique of masking a pungent taste, acidity, a scent, etc. is not yet developed

[0004] Although UMP or CMP is said that there is almost no taste in itself For example, the thing which width of face is given to the taste of 5'-sodium inosinate (IMP) and 5'-guanylic-acid sodium (guaranteed maximum pricegunite), and can be used together with these to a slack sake, It has a synergism by using together with a ***** acid and a ***** acid (the 5th edition Japanese-Standards-of-Food-Additives explanatory, 1987 issue), MSG to upgradings, such as a seasoning, food, etc. used as a taste component, or IMP, Although the things (for example, the Japanese Patent Publication No. 13727 [37 to] official report, a Provisional-Publication-No. 47652 [60 to] official report, etc.) which can be used together with guaranteed maximum pricegunite, things (for example, Japanese Patent Publication No. 5391 [53 to] official report etc.) removable [the bitterness of a lysine and an arginine], etc. are reported further About a masking operation of the taste, acidity, a scent, etc., there is no report from a salt.

[0005]

[Object of the Invention] the purpose of this invention -- the salt of food -- it is in offering the technique of masking these without almost giving change to a pungent taste, acidity, the effective masking technique of a scent, especially other tastes

[0006]

[The means for solving a technical problem] adding UMP or CMP for food, as a result of repeating a study zealously that this invention persons should solve such a technical probrem -- the salt of food -- it finds out that a pungent taste, acidity, and a scent can be masked effectively, and came to complete this invention namely, this invention -- the salt of food -- the technique of masking a pungent taste, acidity, or a scent is offered

[0007] Hereafter, this invention is explained in detail. ~~With the food~~ said by this invention, for example, miso soup, soup, curry, a stew, Dripping of soy sauce, ~~winegar, bitter orange juice, a~~ noodles rainy season, **** seasoning liquid, and roast meat, pickles, picked fish guts, salts, such as coffee, cocoa, chocolate, beer, and bean paste, -- the food with a pungent taste -- A vinegar, bitter orange juice, a noodles rainy season, catsup, mayonnaise, a dressing, or an apple, Milk processed foods, such as fermentation and processed foods, such as food which has acidity, such as fruit-juice drinks, ~~such as lemon and an orange,~~ or meat with a raw bad smell and a fermentation smell, nuoc mam, ****, and a natto, a yeast extract, and a cheese head, etc. are said.

[0008] UMP and CMP which are used by this invention can use a crystal, a rough crystal or UMP, CMP inclusion yeast extract, etc. in any form. They are technique, such as condensing, after carrying out the decomposition back fault of them by the nuclease after a crystal and a rough crystal carry out the heating extraction of the nucleic acid of yeast with brine, carrying out the fractionation of UMP and the CMP to ion exchange resin through a filtrate and considering as a specific salt, and obtaining a crystal. Moreover, as a yeast extract, UMP and CMP are added to the yeast extract which does not contain UMP and CMP, or the extractives which contain RNA from yeast are extracted and after [decomposition] concentration or the thing manufactured by carrying out a spray drying etc. can be illustrated for this by the nuclease.

[0009] Although the addition of UMP or CMP is based also on the modality of food, generally it is desirable to use it in 0.0005 - 10% of the domain especially 0.0001 to 20% as UMP or CMP to the food to add. The technique of this invention may carry out addition mixture of UMP or the CMP to the food for direct, and what mixed and tablet-ized these active principles can also be added and used for it.

[0010] the salt with which these are contained in food although the technique of this invention adds in itself UMP and CMP which do not show taste for food -- a pungent taste -- a component, an acidity component or a scent component, and a certain

interaction are caused -- a salt -- it is imagined as that by which the masking effect of a pungent taste, acidity, or a scent is discovered

[0011]

[Example] Hereafter, an example and the example of a comparison explain this invention still in detail.

The soup stock was produced by combination of example [of a comparison] 1, example 1, - 3 beef extractives powder 250g, 162g [of salt], and onion extractives powder 85g, chicken powder 50g, 50g [of very-refined sugar], and ***** powder 35g, piper 2g, celery powder 1g, parsley powder 1g, clove 1g, 1g [of malic acids], 120g [of sodium glutamates], and dextrin 242g. 8g of this soup stock was added to 100ml of water, and soup was produced (example 1 of a comparison). To soup 100ml produced similarly, the soup which carried out 0.005g addition (example 1) and CMP (Wako Pure Medicine Industrial company make) for UMP (Wako Pure Medicine Industrial company make), and added 0.002g for 0.005g addition (example 2), and UMP and CMP to each, respectively (example 3) was produced, and the organoleptic test was carried out by the following technique to it.

[0012] (Technique-ranking method of an organoleptic test) the soup (four samples) of the example 1 of a comparison which produced the organoleptic test by 15 persons' panelist, and the examples 1-3 -- a salt -- the ranking method (the fewer one [Salt] 1) estimated the pungent taste [a pungent taste] A result is shown in Table 1. When authorized by the technique of using the certification table of a ranking method on the basis of the result of Table 1, the significant difference accepted between the example 1 of a comparison, and the examples 1-3 at 1% of level of significance.

[0013]

[Table 1]

パネラー	試 料			
	比較例 1	実施例 1	実施例 2	実施例 3
1	4	3	2	1
2	4	2	3	1
3	4	2	1	3
4	3	4	2	1
5	4	3	1	2
6	3	4	2	1
7	4	3	1	2
8	4	1	3	2
9	4	3	2	1
10	3	2	4	1
11	3	1	4	2
12	4	3	2	1
13	4	3	2	1
14	4	1	3	2
15	4	1	2	3

[0014] It is 480ml of example [of a comparison] 2, and example 4 weaker, lighter-colored soy sauce, 160ml of the seasoning liquid of the mirin style, and concentration, the noodles rainy season was produced by 80ml, 100g [of very-refined sugar], and kelp extractives powder 6g, MSG5g, and 170ml of water, and it diluted with warm water (60 degrees C) 3 times (example 2 of a comparison). The soup which added 0.03g for UMP and CMP, respectively (example 4) was produced, and the organoleptic test was carried out by the following technique in 100ml of the noodles rainy seasons produced similarly.

[0015] (The -two technique taste examining method of an organoleptic test) 12 persons' panelist -- a salt -- the direction with few pungent tastes was made to choose A result is shown in Table 2. When authorized on the basis of the result of Table 2, the significant difference accepted at 1% of level of significance.

[0016]

[Table 2]

試験項目	比較例 2	実施例 4	検定
塩から味の少ない方	1人	11人	有意(1%)

[0017] The example 3 of a comparison, the example 5, - 2g (Wako Pure Medicine Industrial company make) of 7 citric acids were melted in 100ml of water (example 3 of a comparison). The soup which carried out 0.005g addition (example 5) and CMP for UMP, and added 0.002g for 0.005g addition (example 6), and UMP and CMP in the same solution at each, respectively

(example 7) was produced, and organoleptic-test implementation was carried out by the following technique.
[0018] (Technique-ranking method of an organoleptic test) The organoleptic test evaluated acidity by the ranking method (what has few acidity is 1) by 20 persons' panelist about the solution (four samples) of the produced example 3 of a comparison, and the examples 5-7. A result is shown in Table 3. When authorized by the technique of using the certification table of a ranking method on the basis of the result of Table 3, the significant difference accepted between the example 3 of a comparison, and the examples 5-7 at 1% of level of significance.

[0019]

[Table 3]

パネラー	試 料			
	比較例 2	実施例 4	実施例 5	実施例 6
1	4	2	3	1
2	4	3	2	1
3	3	4	1	2
4	4	3	2	1
5	4	1	2	3
6	2	4	3	1
7	4	3	1	2
8	4	2	1	3
9	4	1	3	2
10	4	1	2	3
11	4	3	2	1
12	3	1	2	4
13	4	3	2	1
14	3	2	4	1
15	4	2	3	1
16	4	1	2	3
17	3	1	4	2
18	3	4	2	1
19	4	3	2	1
20	4	2	1	3

[0020] The example 4 of a comparison and example 8 brewing vinegar (4.2% of acidity) were diluted 5 times (example 4 of a comparison), UMP and the solution (example 8) which reached and added 0.002g of CMP, respectively were independently produced to the same diluted solution, and the two point taste examining method (the direction with little acidity is chosen) estimated acidity by 12 persons' panelist. When authorized on the basis of the result, the significant difference accepted between the example 3 of a comparison, and the example 7 at 1% of level of significance.

[0021] Example [of a comparison] 5 and example 9 catsup 100g (example 5 of a comparison) and the catsup (example 9) which added 0.0025g of CMP to this were produced, and the two point taste examining method (direction with little acidity is chosen) evaluation was carried out [acidity] by 12 persons' panelist. When authorized on the basis of the result, the significant difference accepted between the example 5 of a comparison, and the example 9 at 1% of level of significance.

[0022] Example [of a comparison] 6 and example 10 beef extractives 5g was melted in 100ml of water (example 6 of a comparison). The solution (example 10) which melted 0.005g of UMPs in this solution apart from this was produced, and the organoleptic test was carried out by the following technique.

[0023] (The -two technique taste examining method of an organoleptic test) The organoleptic test conducted the organoleptic test by the two point taste examining method (the direction which does not feel a scent is chosen) about the example 6 of a comparison, and the example 10 by 20 persons' panelist. A result is shown in Table 4. When authorized, a significant difference accepts at 0.1% of level of significance, and the inclination that the beef extractives of an example 10 are liked better than the example 6 of a comparison in a scent was suited.

[0024]

[Table 4]

試験項目	比較例 6	実施例10	検 定
香りの感じない方	2人	18人	有意 (0. 1%)

[0025] Example [of a comparison] 7 and example 11 beef extractives 5g was melted in 100ml of water (example 7 of a comparison). The solution (example 11) which melted 0.005g of CMP in this solution apart from this was produced, and the organoleptic test (20 panelists) was carried out by the two point taste examining method (the direction which a scent does not feel is chosen). When authorized on the basis of the result, a significant difference accepts at 0.1% of level of significance, and the inclination that the beef extractives of an example 11 are liked better than the example 7 of a comparison in a scent was suited.

[0026] 10ml of example [of a comparison] 8 and example 12 nuoc mam was melted in 100ml water (example 8 of a comparison), what added UMP0.002g and CMP0.002g to this independently was produced (example 12), and the organoleptic test (20 panelists) was carried out by the two point taste examining method (the direction which a scent does not feel is chosen). A result is shown in Table 5. When it authorizes on the basis of Table 5, a significant difference accepts at 0.1% of level of significance, and the inclination that the fish sauce of an example 12 is liked better than the example 8 of a comparison was suited.

[0027]

[Table 5]

Item	Example 8 (nuoc mam)	Example 12 (nuoc mam)
Score	8.5	9.0

[0028] Example [of a comparison] 9 and example 13 tomato-juice 100ml (example 9 of a comparison) and the thing (example 13) which added UMP and 0.002g of CMP to this, respectively were produced, and the organoleptic test (25 panelists) was carried out by the two point taste examining method (the direction which a scent does not feel is chosen). When it authorizes on the basis of the result, a significant difference accepts at 1% of level of significance, and the inclination that the tomato juice of an example 13 is liked better than the example 7 of a comparison was suited.

[0029] Example [of a comparison] 10 and example 14 beef extractives 5g is melted in 100ml water (example 10 of a comparison). It is a yeast extract (Saccharomyces-group-originate and its UMPs) to this independently. The content of CMP produced what added 0.5ml of the solutions which melted 2g, UMP, and 1g of each CMP in 100ml of warm water 0%, respectively (example 14), and carried out the organoleptic test (15 panelists) by the two point taste examining method (the direction which a scent does not feel is chosen). When it authorizes on the basis of the result, a significant difference accepts at 1% of level of significance, and the inclination that the example 14 is liked better than the example 10 of a comparison was suited.

[0030]

[Effect of the invention] According to this invention, the technique of carrying out [scent / the taste, acidity or] mass ***** is offered from the salt of food by what UMP or CMP is added for food as explained above.

[Translation done.]

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CLAIMS

[Claim]

[Claim 1] the salt of food characterized by adding 5'-uridylic-acid sodium and/or 5'-cytidylic-acid sodium for food -- the technique of masking a pungent taste, acidity, or a scent

[Translation done.]